UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

REPORT OF
VEGETATIVE TYPE SURVEY
OF
SEQUOIA NATIONAL PARK
1933-1934

10—250

U. S. GOVERNMENT PRINTING OFFICE: 1935 6—8215

THE VEGETATIVE - TYPE SURVEY

OF

SEQUOIA NATIONAL PARK
1933-1934

Wilfrid T. Frost
Chief Mappist
May 10, 1935

CONTENTS

CONTENTS - (cont.)

The

VEGETATIVE - TYPE SURVEY

of

SEQUOIA NATIONAL PARK

The Vegetative-type map of Sequoia National Park is a survey showing by means of symbols and colors the dominant species of plants found throughout the park.

The types were delineated in the field, on a U.S.G.S. topographical map, by ocular sketching from ridges, peaks, and other vantage points, supplemented by occasional sample plot checks.

The Vegetative-type map is to be used in rating the fire hazard, and in planning for protection against fire; in planning insect and disease control; in the determination of the proper land use or for recreation, wildlife, or campground development, etc.; in ecological studies of the fauna and flora; as part of a vegetative-type survey of the State of California under the direction of the California Forest Experiment Station; and as a part of the nation-wide forest survey authorized by the McSweeney-McNary Research Act of 1928.

In order that the type map of Sequoia National Park might have the greatest possible value for the United States and California State Forest Services as well as for the National Park Service, it was decided to make the fullest possible use of the "Instructions for the preparation of the Vegetative-type Map of California" ** as prepared by the California Forest Experiment Station. One or two omissions and additions were the only departures from these instructions. Since the forests of a National Park are not open to commercialization, it was deemed unnecessary to determine the degree of stocking and site classification as required on all lands subject to commercialization.

For mapping and study purposes, the vegetation has been divided into general fire hazard types, with a further subdivision into pure and mixed stands in which the dominant species are indicated by symbols.

In shrub types a pure stand is defined as one in which a single species covers approximately 80 percent or more of the area; and a mixed stand as one in which two or more species occur, with no one occupying as much as 80 percent or less than 20 percent of the area.

** Edition of August 14, 1933, by A. E. Wieslander, H. A. Jensen, and H. S. Yates.

In tree types a pure stand is one which contains approximately 80 percent or more of a single species, 8 inches D.B.H.* and larger; and a mixed stand contains two or more species none of which comprises as much as 80 percent or less than 20 percent of the total number of trees 8 inches D.B.H. and larger.

Any species of distributional or ecological importance which is present as scattered individuals or in small groups but which is less than 20 percent of the stand has been shown by symbol on the reference map. The reference map also shows the location of sample plots, photographs, and the route of travel.

* Diameter Breast High or 4.5 feet.

DESCRIPTION OF TYPES

BARREN

Ba Barren (Areas left uncolored)

Areas which are too rocky, too exposed, or at too high an elevation to support more than a very scattered growth of herbs or shrubs. Such areas are so devoid of vegetation as to constitute a definite fire barrier.

There are 93,496 acres of this type in the park, of which more than 75,000 acres are found in the Kern drainage above timberline under alpine conditions.

////// Semi-barren (Cross-hatched diagonally)

Areas within any type (exclusive of Sub-alpine) whose vegetation, while not so scanty as to class the area as barren, covers less than half of the ground surface; usually found on rocky or very steep slopes, as in the case of Kern Canyon.

CULTIVATED

Cu Cultivated (Dixon's #322 colored pencil)

The relatively few cultivated areas (32 acres) found in the park are delineated and marked Cu. Principal locations are along the North Fork of the Kaweah, on Yucca Creek, and in the Oriole region.

GRASSLANDS

Gr Grasslands and Meadows (Dixon's #353)

Areas where the principal vegetation consists of grasses, sedges, rushes, and herbs. Dry grasslands of the foothills are labeled Gr., while the wet mountain meadows which may or may not contain willows (Sx) are labeled Mdw. Frequently a meadow may support a scattered growth of Lodgepole Pine, in which case the symbol for Lodgepole (L) is included in the meadow type.

SHRUB TYPES

The chaparral or brushfield belt is divided into four types, namely: (1) Sagebrush, (2) Chamise, (3) Chaparral, and (4) Timberland-Chaparral. The first three belong to the Upper Sonoran Zone*, the fourth to the Transition Zone.

Sagebrush (Faber's #44)

This type is found in only a few places, none of them in the park, and is composed chiefly of the Yerba Santa (Ec) (Eriodictyon californicum). This species is usually among the first in the plant succession which follows fire; its most frequent associates are grass and other herbaceous vegetation. This type presents a serious fire hazard and is found chiefly on the South Fork of the Kaweah just below the park line on the site of the 1923 burn.

Chamise (Dixon's #343)

The dominance of Chamise (Af) (Adenostoma fasciculatum), the scantiness of leaf-litter due to the fine needle-like leaves of the species, and the restriction for the most part to hot and dry southerly exposures characterize this type.

The Manzanitas are the commonest associates in this type, principally the Mariposa Manzanita (Ama) (Arctostaphylos mariposa) and the Sticky Manzanita (Av) (Arctostaphylos viscida), although the Birchleaf Mountain Mahogany (Cb) (Cercocarpus betuloides) is also frequently found.

The chamise chaparral makes up the bulk (16,500 acres) of the total shrub type in the park and is found principally on the lower south and west slopes of the North and Middle Forks of the Kaweah.

*C. Hart Merriam's "Life Zones and Crop Zones of the U. S." (1998)

Most of the Class C** fires in the park have occurred in this type, and burns as old as 10 years still show the effects of the fire. A good example is the 400 acre fire of 1926 at Hospitol Rock.

** Classification of fires: A - 1/4 acre or less.
B - More than 1/4 but less than 10 acres.
C - 10 acres or more

Chaparral (Faber's #49)

This type embraces all of the Upper Sonoran Chaparral belt, exclusive of the Chamise chaparral. The chief species of this type are the Birchleaf Mountain Mahogany (Cb) (Cercocarpus betuloides) and the Buckbrush (Cc) (Ceanothus cuneatus), while the following species are found occasionally: Chaparral Whitethorn (Cd) (Ceanothus divaricatus), Mariposa Manzanita (Ama) (Arctostaphylos mariposa), Kaweah Oak (Qgs) (Quercus garrayana semota), Sticky Manzanita (Av) (Arctostaphylos viscida), and Whiteleaf Manzanita (Apa) (Arctostaphylos pastillosa).

In contrast with the Chamise chaparral, this type normally has a deep leaf-litter (2 to 4 inches), is of impenetrable density, and attains a greater height (6 to 18 feet). These characteristics make it a superior water-shed cover, but also a higher fire hazard. Fire has apparently gradually extended this type at the expense of the woodland type as is evidenced by relicts and standing dead snags of these species.

Occasionally a woodland-chaparral type is mapped containing any of the chaparral species with scattered Canyon Live Oak (C) (Quercus chrysolepis) or the California Buckeye (H) (Aesculus californica).

Timberland-Chaparral (Dixon's #335)

Characterized by Transition Zone species, this is a temporary fire-type occupying areas that are thought by some to be potential timber-growing lands, except, of course, where the area is too rocky. This type varies from 3 to 5 feet (sometimes 10 feet) in height and builds up from 2 to 3 inches of leaf-litter. Located at higher and cooler elevations, it is of lower fire hazard than the other chaparral types.

The commonest species met in this type are the Greenleaf Manzanita (Ap) (Arctostaphylos patula), Snow brush (Ceo) (Ceanothus cordulatus), and the Chinquapin (Cs) (Castanopsis sempervirens), with the following species occurring less often: Bitter Cherry (Pe) (Prunus emarginata). Willow (Sx) (Salix sp.), and Sagebrush (Atr) (Artemisia tridentata).

In the high mountain areas where the willows form a pure stand along the drainage, they have been mapped as timberland-chaparral with symbol Sx; where accompanied by sufficient grass or herbs for grazing, they have been mapped as a meadow type (Mdw).

WOODLAND TYPES

Woodland types are composed of various broad-leaved trees usually forming a closed canopy and ranging from 30 to 50 feet in height. Three sub-types are recognized under this heading, namely: (1) Woodland Chaparral, (2) Woodland-Grassland, and (3) Woodland.

Woodland-Chaparral (Dixon's #343 and Faber's #49)

This covers types that are transitional between Woodland and Chaparral, with both Woodland and Chaparral species appearing in the crown canopy. The mixture is sometimes uniform throughout the area, or it may be made up of small areas of two types: that is, individual areas that are too small to map.

The type is colored for the nearest related chaparral type based on fire hazard and the dominant species.

Species that are most often found associated in this type are as follows:

C - Canyon Live Oak (Quercus chrysolepis)
Cb - Birchleaf Mountain Mahogany (Cercocarpus betuloides)
Cd - Chaparral Whitethorn (Ceanothus divaricatus)
Af - Chamise (Adenostoma fasciculatum)
Ama - Mariposa Manzanita (Arctostaphylos mariposa)

Woodland-Grassland (Dixon's #324)

This, essentially a grazing type, consists of open stands of broad-leaved species with a grass or herbaceous ground cover. This type differs from a pure woodland type in that the crowns of the trees do not form a closed canopy over the ground surface. This type is most extensive on the low elevations of the North and Middle Forks of the Kaweah. The woodland species found in this type are as follows:

D' - Blue Oak (Quercus douglassii)
B - California Black Oak (Quercus kelloggii)
W - Interior Live Oak (Quercus wislizenii)
C - Canyon Live Oak (Quercus chrysolepis)

The grass and other herbaceous ground cover is indicated by the symbol Gr.

Woodland (Dixon's #349)

This is a broad-leaf stand in which the crowns of the trees form a complete canopy obscuring the understory vegetation from view. About 23,000 acres of woodland are found throughout the park, nearly half of the total concentrated in the Middle Fork of the Kaweah. This type presents a formidable fire hazard.

Field observation has shown that the Woodland type easily divides itself into two general sub-types:

The Canyon Live Oak sub-type (C) (Quercus chrysolepis) is typical of steep, rocky slopes and canyons. It is found in both the Upper Sonoran and Transition Zones and occupies a position directly below the coniferous types in many localities. It is a frequent associate with stragglers of the Ponderosa Pine, thus evidencing the fact that it is the first plant to appear on an area after fire destroys the original coniferous cover. It is particularly adapted to quick succession since it survives by sprouting from the old root system.

The Black Oak sub-type (B) (Quercus kelloggii) lies within the Transition Zone and, like Timberland-chaparral, appears to be a fire type occupying potential coniferous timberlands. Ponderosa Pine is very commonly associated with the Black Oak in this type.

The Stream-side association is a relatively narrow woodland type and consists of varying associations of the following species:

B - Black Oak (Quercus kelloggii)
W - Interior Live Oak (Quercus wislizenii)
S - Sycamore (Platanus racemosa)
A - White Alder (Alnus rhombifolia)
F - Fremont Cottonwood (Populus fremontii)
B - Black Cottonwood (Populus trichocarpa)
I - Incense Cedar (Libocedrus decurrens)
M - Bigleaf Maple (Acer macrophyllum)
C - Canyon Live Oak (Quercus chrysolepis)

MAIN TIMBER TYPES

The timber belt of Sequoia National Park covers about 153,000 acres, or 32 percent of the total area of the park.

The following timber types make up the main stand of the Sierran forest in the park, and are found in the Transition and Canadian Zones.

Sequoia Types (Dixon's #321½)

Because of the importance of the Big Tree (Br) (Sequoia gigantea) to Sequoia National Park, all vegetative-types that contained individuals of the Sequoia were mapped as of the Sequoia type, regardless of whether or not the Sequoia was present to the extent of 20 percent of the stand.

Never found in pure stands, the Big Tree is generally associated with Sugar Pine and White Fir, although Ponderosa Pine, Shasta Red Fir, and Incense Cedar are found with it in some localities.

The bulk of the Big Trees grow between 6,000 and 7,500 feet elevation above sea level, while quite a few are found down to 5,500 and up to 8,000 feet. The highest known Sequoia in the Sierra occurs at 8,800 feet on the southeast slope of Paradise Ridge above Atwell Mill. It is a tree 140 feet high and about 13.7 feet in diameter at 7 feet from the ground. This tree still bears cones although the viability of the seeds is not known. The tree is isolated from the nearest grove (Atwell) by 800 to 1000 feet.

The lowest Sequoia in the park is located just below Clough Cave at 3500 feet. Another tree may be seen in the river bed about 2 miles down stream, just below Johnson's ranch at 3,000 feet.

Confusion is very apt to arise in field identification (with binoculars) between the Big Tree and the Incense Cedar. At a great distance it is nearly impossible for an inexperienced observer to tell the tops of the trees apart. This fact has undoubtedly been the cause of occasional reports of groves of Big Trees where none actually exist.

Pine Types (Dixon's #325)

This is a pure pine stand including both the Ponderosa (Yellow) Pine (Y) (Pinus ponderosa) and the Jeffrey Pine (J) (Pinus ponderosa jeffreyi) which are difficult to differentiate in mapping. The former is found on relatively fertile slopes, while the latter occurs on more rocky ground or in mixture with the former. The stands are usually more open than in the higher timber belts and may have an understory of Bear Clover (Cf) (Chamaebatia foiclosa) or Pinemat Manzanita (An) (Arctostaphylos nevadensis), or may occur in a mixed Pine-chaparral type with the Greenleaf Manzanita (Ap) (Arctostaphylos patula), Snowbrush (Cco) (Ceanothus cordulatus), or Chinquapin (Cs) (Castanopsis sempervirens). This type presents a very serious fire hazard, because of the understory of brush which frequently accompanies it.

Pine-Fir Types (Dixon's #354)

One of the largest single types in the park is a mixed stand of ponderosa Pine (Y) (Pinus ponderosa), White Fir (W) (Abies concolor), and Sugar Pine (S) (Pinus lambertiana). Other trees that are to be found in this type are the Jeffrey Pine (J) (Pinus ponderosa jeffreyi) and the Shasta Red Fir (S) (Abies magnifica shastensis).

Occasional patches of timberland-chaparral may be found within the type or as an understory. Among such species are the following:

Greenleaf Manzanita (Ap) (Arctostaphylos patula)
Pinemat Manzanita (An) (Arctostaphylos nevadensis)
Snowbrush (Ceo) (Ceanothus cordulatus)
Chinquapin (Cs) (Castanopsis sempervirens)
Bitter Cherry (Pe) (Prunus emarginata)

Fir Types (Faber's #22)

The most extensive forests in Sequoia National Park are the fir stands. More than 54,000 acres of fir type are found in the park, with less than 10 percent of the stand occurring in the Kern drainage. It has been very interesting to notice the irregularities in vegetational distribution in the Kern area, not the least of which is the lack of fir forest.

The two species of fir in the park are:

White Fir (W) (Abies concolor)
Shasta Red Fir (S) (Abies magnifica shastensis)

Of all the Red Fir that I have examined throughout the park, I have yet to find a single individual of the pure Red Fir (Abies magnifica).

MISCELLANEOUS TIMBER TYPES

The miscellaneous types of timber growth are separated into two general divisions: (1) Limber Pine-Pinyon Pine-Juniper, and (2) Lodgepole.

Limber Pine - Pinyon - Juniper (Faber's #22)

Stands of Limber Pine (Lp) (Pinus flexilis), Pinyon (P) (Pinus cembroides monophylla), and Sierra Juniper (Jo) (Juniperus occidentalis) are all classed under one head.

These trees are found in very scattered localities and cover limited areas.

The Pinyon is found on the walls of Kern Canyon between Laurel Creek and a point one-half mile above Rock Creek.

The Juniper occurs at nearly all points on the walls of Kern Canyon, and is usually dwarfed and associated with the Curlleaf Mountain Mahogany (Cl) (Cercocarpus ledifolius).

The Limber Pine is found in the mouth of Whitney Creek in the Kern, and again on the edge of Chagoopa Plateau where only one individual occurs.

Lodgepole Types (Dixon's #323)

Wherever the Lodgepole Pine (L) (Pinus contorta murrayana) occurs in pure or mixed stands that are not truly subalpine in character, it is mapped under this type.

This type is usually found surrounding meadows and in canyon bottoms.

SUGAR PINE TYPES

Where present up to 15 percent or more of the mixed stand, Sugar Pine (S) (Pinus lambertiana) is mapped within the type, disregarding its presence when coloring the type.

Similar treatment was given to the Western White Pine (W) (Pinus monticola) except where it was subalpine in character. This pine is found in a pure stand in only one or two places in the park, while the Sugar Pine never occurs pure.

SUBALPINE TREE TYPES

Subalpine tree stands are by definition semi-barren and dwarfed. This is true in the larger portion of the subalpine type as mapped throughout the park, but many acres are not only not semi-barren but are good sized stands of upright timber.

The Subalpine falls into two classifications: the Lodgepole White Pine Types and the Foxtail, Whitebark Pine Types.

Lodgepole-White Pine Types (Dixon's #322)

More than 8,000 acres of forest in the park are included in this category. This type is usually found to occur at slightly lower elevations than the Foxtail-Whitebark Pine type. It includes any of the following species:

Lodgepole Pine (L) (Pinus contorta murrayana)
Western White Pine (WP) (Pinus monticola)
Shasta Red Fir (S) (Abies magnifica shastensis)
Sierra Juniper (Jo) (Juniperus occidentalis)

Foxtail-Whitebark Pine Types (Dixon's #322)

Of the 75,000 acres of Subalpine types in the park, more than 67,000 acres are included in this type.

In the Sierra north of our boundaries the Whitebark Pine is considered the typical High Sierra tree. It is quite different in Sequoia National Park where the Foxtail Pine is abundant and the Whitebark Pine is limited to the very highest parts of the Headwaters of the Kern.

The two species that make up this type are the Foxtail Pine (Fp) (Pinus balfouriana) and the Whitebark Pine (WP) (Pinus albicaulis).

LEGEND


Barren


Grasslands


Cultivated

Shrub Types


Sagebrush


Chamise


Chaparral


Timberland-Chaparral

Woodland Types


Woodland-Chaparral


Woodland-Grassland


Woodland

Main Timber Types


Pine Types


Pine-Fir Types


Fir Types


Miscellaneous Types


Lodgepole Pine


Sequoia Types

Subalpine Tree Types


Lodgepole-White Pine Types


Foxtail-Whitebark Pine Types


Semi-barren

SPECIES LIST

(Note: Scientific names are in accord with "A Manual of the Flowering Plants of California" by Willis Linn Jepson).

Herbaceous Species:

Gr	Grasslands (dry)	
Mdw	Meadows or wet grasslands	

Shrub Species:

Af	Adenostoma fasciculatum	Chamise
Ama	Arctostaphylos mariposa	Mariposa Manzanita
An	Arctostaphylos nevadensis	Pinemat Manzanita
Ap	Arctostaphylos patula	Greenleaf Manzanita
Apa	Arctostaphylos pastillosa	Whiteleaf Manzanita
Atr	Artemisia tridentata	Common Sagebrush
Av	Arctostaphylos viscida	Sticky Manzanita
Cb	Cercocarpus betuloides	Birchleaf Mountain Mahogany
Cc	Ceanothus cuneatus	Buckbrush
Cd	Ceanothus divaricatus	Chaparral Whitethorn
Ccо	Ceanothus cordulatus	Snowbrush
Cl	Cercocarpus ledifolius	Curlleaf Mountain Mahogany
Cs	Castanopsis sempervirens	Sierra Chinquapin
Ec	Eriodictyon californicum	California Yerba Santa
Hdd	Holodiscus discolor dumosa	California Meadowsweet
Pe	Prunus emarginata	Bitter Cherry
Qc	Quercus chrysolepis	Scrub Canyon Live Oak
Qd	Quercus dumosa	California Scrub Oak
Qgs	Quercus garryana semota	Kawsah Oak
Qw	Quercus wislizenii	Scrub Interior Live Oak
Sx	Salix sp.	Willow
Yw	Yucca Whippleii	Yucca

Woodland Tree Species

A	Alnus rhombifolia	White Alder
A	Populus tremuloides	Aspen
B	Populus trichocarpa	Black Cottonwood
B	Quercus kelloggii	California Black Oak
C	Quercus chrysolepis	Canyon Live Oak
D'	Quercus douglassii	Blue Oak
F	Populus fremontii	Fremont Cottonwood
H	Aesculus californica	California Buckeye
L'	Umbellularia californica	California Laurel
M'	Quercus morehus	Evergreen Black Oak
S	Platanus racemosa	Sycamore
W	Quercus wislizenii	Interior Live Oak

Commercial Tree Species

Br	Sequoia gigantea	Big Tree
I	Libocedrus decurrens	Incense Cedar
S	Pinus lambertiana	Sugar Pine
$\hat{S}$	Abies magnifica shastensis	Shasta Red Fir
$\hat{W}$	Abies concolor	White Fir
W'	Pinus monticola	Western White Pine
Y	Pinus ponderosa	Ponderosa Pine
J	Pinus ponderosa jeffreyi	Jeffrey Pine

Miscellaneous and Alpine Tree Species

F_P	Pinus balfouriana	Foxtail Pine
Jo	Juniperus occidentalis	Sierra Juniper
L	Pinus contorta murrayana	Lodgepole Pine
L_P	Pinus flexilis	Limber Pine
P	Pinus cembroides monophylla	Singleleaf Pinyon
W_P	Pinus albicaulis	Whitebark Pine
N	Torreya californica	California Nutmeg

Type Map

Omitted

Type Map

Omitted

VEGETATIVE-TY[illegible]RY - SEQUOIA NATIONAL PARK, CALIF.

AREA IN ACRES

TYPES	Kern	Little Kern	Tule	South Fork Kaweah	East Fork Kaweah	Middle Fork Kaweah	Marble Fork Kaweah	North Fork Kaweah	Totals	Semi-barren
Barren	75097.60	134.40	211.20	761.60	1497.60	15366.40	5254.40	172.80	98496.00	---
Grasslands	4396.00	51.20	44.80	704.00	384.00	1011.20	556.80	140.80	7788.80	1216.00
Cultivated	-----	----	----	------	19.20	-----	----	12.80	32.00	---
Shrub Types										
Chamise	-----	----	----	70.40	428.80	8025.60	627.20	7353.60	16505.60	390.40
Chaparral	-----	----	----	806.40	2790.40	2246.40	19.20	1593.60	7456.00	---
Timberland-Chaparral	1715.20	230.40	70.40	313.60	480.00	4300.80	499.20	51.20	7660.80	896.00
Woodland Types										
Woodland Chaparral	-----	----	----	------	108.80	697.60	627.20	454.40	1888.00	89.60
Woodland Grassland	-----	----	----	288.00	44.80	2889.60	185.60	2412.80	4940.80	---
Woodland	-----	----	----	2726.40	3987.20	10867.20	1075.20	4454.40	23110.40	1465.60
Main Timber Types										
Sequoia Types	-----	----	839.60	2028.80	3168.00	1683.20	1529.60	505.60	9804.80	96.00
Pine Types	12102.00	179.20	384.00	1440.00	4192.00	5420.80	3456.00	5043.20	32217.20	6348.80
Pine-Fir Types	5996.80	----	569.60	2630.40	3123.20	7046.40	6329.60	3264.00	28950.00	3987.20
Fir Types	4512.00	2041.60	1587.20	7091.20	9952.00	12384.00	9644.80	6931.20	54144.00	5510.40
Misc. Timber Types	17427.20	377.60	160.00	4467.20	2662.40	972.80	1824.00	51.20	27942.40	4665.60
Subalpine Tree Types										
Lodgepole-White Pine Types	6483.20	-----	----	------	217.60	198.40	1196.80	-----	8096.00	---
Foxtail-Whitebark Pine Types	60877.20	243.20	----	742.40	1548.80	3238.40	518.40	-----	67168.40	---
Lakes	2860.80	12.80	6.40	64.00	25.60	268.80	172.80	-----	3411.20	---
TOTALS	191968.00	3270.40	3923.20	24134.40	34630.40	75737.60	33516.80	32441.60	399622.40	24665.60
Area in square miles	299.95	5.11	6.13	37.71	54.11	118.34	52.37	50.69	624.41	38.54

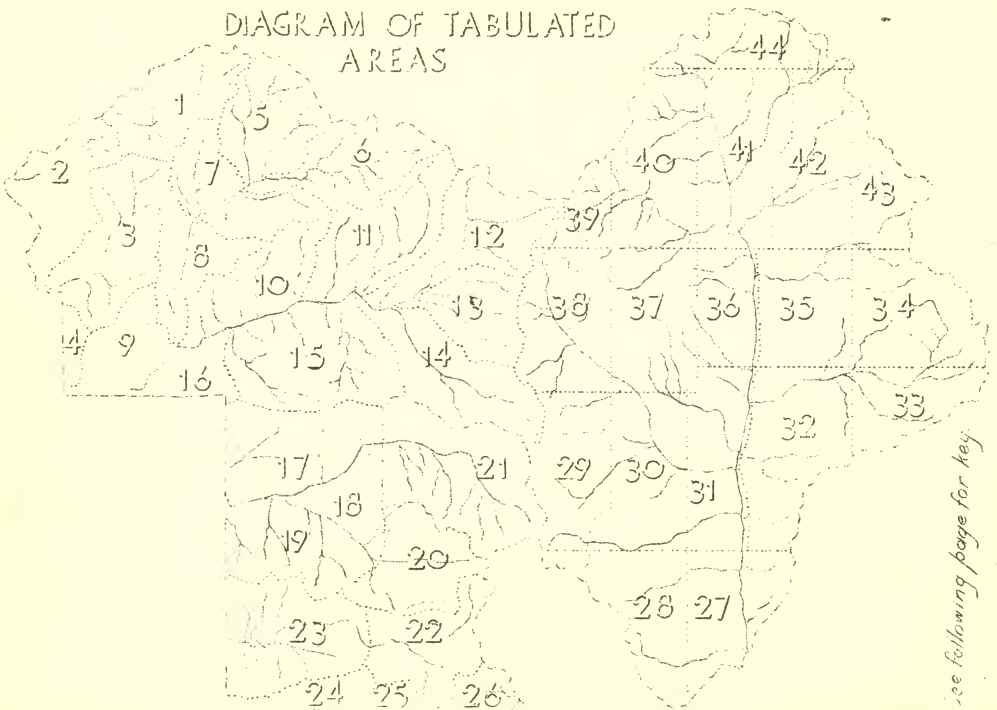


DIAGRAM OF TABULATED AREAS
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
See following page for key

KEY TO TABULATED AREAS BY DRAINAGES *

Kaweah River Drainage
- North Fork
  1. Dorst Creek
  2. Pine Ridge
  3. Yucca Creek
  4. Advance Area
- Marble Fork
  5. Clover-Silliman Creeks
  6. Tokopah Valley
  7. Halstead Creek
  8. Marble Falls
- Middle Fork
  9. Fry's Point
  10. Moro Rock
  11. Alta Meadow
  12. River Valley
  13. Granite Creek
  14. Cliff Creek
  15. Castle-Dome-Paradise Creeks
  16. Milk Ranch Peak
- East Fork
  17. Atwell Mill
  18. Tar Cap
  19. Eden Area
  20. Hockett Meadows
  21. Mineral King (outside of park boundaries)
- South Fork
  22. South Fork Meadows
  23. Clough Cave

Tule River Drainage
  24. Dillon Wood
  25. Summit Lake

Little Kern River Drainage
  26. Quinn Country

Kern River Drainage
  27. Kern Station
  28. Coyote Pass
  29. Franklin Pass
  30. Moraine Lake
  31. Chagoopa Falls
  32. Kern Hot Springs
  33. Siberian Pass
  34. Mt. Langley
  35. Crabtree Meadow
  36. Red Spur
  37. Kaweah Basin
  38. Big Arroyo
  39. Triple Divide Peak
  40. Milestone
  41. Tyndall Creek
  42. Wright Lakes
  43. Wallace Lake
  44. Diamond Mesa

* Numbers refer to areas delineated on diagram on previous page.

EXPLANATION OF MEASUREMENTS

The area of the vegetative-types was determined by measuring the area of each type on the type map. The planimeter used was graduated in hundredths of square inches. Since the map was on a scale of one inch to the mile, each hundredth was the equivalent of 6.4 acres.

The error involved in measuring small areas by this method is quite appreciable, as will be judged. However, to average the tendency toward errors, each type was circumscribed three times with the planimeter and the resulting figure divided by three.

Many of the meadows throughout the park are so located that they are an important factor in use of pack-stock and resultant location of camp sites. Many meadows, because of their importance, have been delineated on the type map, although they have been exaggerated to do so. In many cases such meadows are tabulated as having a coverage of 6.4 acres (this being the smallest unit measurable with the instrument used). In the final measurement of all meadow types due account was taken of the above exaggeration and sufficient acreage was subtracted from larger meadows to balance the summary.

Although the total area of the park is stated as 604 square miles, my measurements, made three times, have given the total area as 624 square miles. It is possible that sufficient error has crept into the measurements to account for this difference, but I feel that a re-measurement of the park map with a more accurate instrument will closely approach the larger figure.

From the above discussion it will thus be evident that the use of the decimal values in a statement of areas of vegetative-types as given in this report is misleading and erroneous; however, it has been necessary, from the nature of the case, to use the decimal.

1. DORST CREEK

8870.40 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	96.00			
Ba			96.00	
Grasslands	140.80			
Mdw			140.80	
Shrub Types	6.40			
Timberland-Chaparral		6.40		
Ap Pe Cco			6.40	
Main Timber Types	3627.20			
Pine Types		1350.40		
J			32.00	
JAp			1318.40	
Semi-Barren				64.00
Pine-Fir Types		947.20		
JS			44.80	
JWS			19.20	
JWI			658.20	
SJW Ap			211.20	
Fir Types		6144.00		
Ŝ			1824.00	
Ŵ			44.80	
Semi-Barren				19.20
ŜW'			1708.80	
SŴ			716.80	
ŜŴ			1849.60	
Semi-Barren				83.20
Sequoia Types		134.40		
Br Ŵ			76.80	
Br SŴ			57.60	
Miscellaneous		51.20		
L			19.20	
LŜ			32.00	

2. PINE RIDGE

9824.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	38.40			
Ba			38.40	
Shrub Types	3475.20			
Chamise		2368.00		
Af			2124.80	
Af Qgs			83.20	
Af Gr			160.00	
Chaparral		1094.40		
Cb			185.60	
Cb Cc			569.60	
Qgs Cb			57.60	
H Qgs			230.40	
Ama			51.20	
Timberland-Chaparral		12.80		
BAp Gr			12.80	
Woodland Types	3251.20			
Woodland-Grassland		1664.00		
D' Gr			652.80	
B Gr			1011.20	
Woodland		1587.20		
B			38.40	
CB			499.20	
C			838.40	
WCBS			211.20	
Main Timber Types	3059.20			
Pine Types		1452.80		
JI			44.80	
Y			6.40	
YB			179.20	
SY			499.20	
SYB			204.80	
SYI			32.00	
SYIB			57.60	
YIB			265.80	
YI			160.00	
Pine-Fir Types		1094.40		
SY$\overline{W}$			1017.60	
SY$\overline{W}$I			32.00	
SW$\overline{I}$			44.80	
Fir Types		140.80		
S$\overline{W}$			38.40	
S$\overline{W}$			102.40	
Sequoia Types		371.20		
Br $\overline{W}$			147.20	
Br S$\overline{W}$			224.00	

3. YUCCA CREEK

12051.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	38.40			
Ba			38.40	
Cultivated	12.80		12.80	
Shrub Types	3993.60			
Chamise		3462.40		
Af			2598.40	
Semi-Barren				123.00
Af Cb			179.20	
Af Ama			499.20	
Af Gr			185.60	
Chaparral		499.20		
Cb			198.40	
Cb Cd			128.00	
Cb Gr			32.00	
Cb Qgs			51.20	
HQd			89.60	
Timberland-Chaparral		32.00		
Ap Pe Cco			32.00	
Woodland Types	3904.00			
Woodland-Chaparral		454.40		
CCb			313.60	
CCd Ama			140.80	
Woodland-Grassland		736.00		
D' Gr			320.00	
B Gr			32.00	
C Gr			243.20	
C Gr Ec			140.00	
Woodland		2713.60		
C			2086.40	
Semi-Barren				70.40
CB			396.80	
CBS			230.40	
Main Timber Types	4102.40			
Pine Types		2233.60		
J			140.80	
Y			313.60	
SY			608.00	
Semi-Barren				6.40
JB			19.20	
JAp			25.60	
SJB			57.60	
SJCB			38.40	
SJC			19.20	
YB			691.20	
SYB			64.00	

3. YUCCA CREEK Cont'd

Main Timber Types Cont'd	Type Total	Sub-Total	Content	Semi-Barren
Pine Types Cont'd				
YC			51.20	
YC BAv			204.80	
Semi-Barren				76.80
Pine-Fir Types		1222.40		
SYf			544.00	
SJf			569.60	
Semi-Barren				32.00
JYI			108.80	
Fir Types		646.40		
f			25.60	
S			620.80	
Semi-Barren				38.40

4. ADVANCE AREA

1696.00 Acres

	Type-Total	Sub-Total	Content	Semi-barren
Shrub Types	1523.20			
Chamise		1523.20		
Af			1465.60	
Af Ama			57.60	
Woodland Types	166.40			
Woodland-Grassland		12.80		
D' Gr			12.80	
Woodland-Stream		153.60		
C			153.60	
Semi-Barren				64.00
Main Timber Types	6.40			
Pine Types		6.40		
Y			6.40	

5. CLOVER-SILLIMAN CREEKS

8736.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	390.40			
Ba			390.40	
Grassland	307.20			
Mdw			307.20	
Shrub Types	172.80			
Timberland-Chaparral		172.80		
Ap			160.00	
Sx			12.80	
Main Timber Types	6931.20			
Pine Types		576.00		
J			576.00	
Pine-Fir Types		1331.20		
JF			249.60	
Semi-Barren				76.80
SJF			1081.60	
Semi-Barren				19.20
Fir Types		3910.40		
S			2560.00	
Semi-Barren				6.40
F			243.20	
Semi-Barren				38.40
SF			102.40	
SF'			1004.80	
Miscellaneous		1113.60		
L			236.80	
LS			876.80	
Subalpine Tree Types	339.60			
Foxtail-Whitebark Pine Types		64.00		
Fo			57.60	
Wp			6.40	
Lodgepole-White Pine Types		825.60		
LF'			76.80	
W'			544.00	
SW'			204.80	
Lakes	44.80		44.80	

6. TOKOPAH VALLEY

9459.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	4838.40			
Ba			4838.40	
Grasslands	83.20			
Mdw			64.00	
Gr			19.20	
Shrub Types	256.00			
Timberland-Chaparral		256.00		
Ap Cco			64.00	
Cs			38.40	
Sx			153.60	
Main Timber Types	3340.80			
Pine Types		371.20		
J			243.20	
J Jo Ap			128.00	
Pine-Fir Types		281.60		
S J $\hat{W}$			51.20	
L J $\hat{W}$			76.80	
SJ $\hat{W}$ Ap Cco Cs			153.60	
Fir-Types		1388.00		
$\hat{S}$			755.20	
Semi-Barren				140.80
S $\hat{W}$			192.00	
$\hat{S}$ $\hat{W}$			19.20	
$\hat{S}$ W'			588.80	
Semi-Barren				76.80
$\hat{S}$ Ap Cco Cs			332.80	
Miscellaneous		800.00		
L			230.40	
L W'			224.00	
$\hat{S}$ L			102.40	
L Sx			51.20	
L Gr Sx			32.00	
Jo J			160.00	
Subalpine Tree Types	812.80			
Foxtail-Whitebark Pine Types		441.60		
F_F			408.20	
W_F			33.40	
Lodgepole-White Pine Types		371.20		
L			6.40	
W'			179.20	
$\hat{S}$W'			185.60	
Lakes	128.00		128.00	

7. HALSTEAD CREEK

9004.30 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	12.80			
Ba			12.80	
Grasslands	147.20			
Mdw			147.20	
Shrub Types	70.40			
Timberland-Chaparral		70.40		
Pe			6.40	
Pe Gr			25.60	
Cs			6.40	
Cco Gr Sx			19.20	
Sx			12.80	
Main Timber Types	8761.60			
Pine Types		832.00		
J			243.20	
Semi-Barren				12.80
J B			25.60	
Semi-Barren				12.80
J Ap			76.80	
J Ap Cco			76.80	
SY			409.60	
Semi-Barren				25.60
Pine-Fir Types		3961.60		
SYF			1075.20	
Semi-Barren				64.00
SYJF			249.60	
Semi-Barren				147.60
SJF			2336.00	
JF			57.60	
JF Ap			115.20	
Semi-Barren				12.80
JF Ap Cco			76.80	
JS			51.20	
Fir Types		3315.20		
S			1555.20	
F			1056.00	
Semi-Barren				108.80
SF			544.00	
Semi-Barren				64.00
SF'			160.00	

	Type Total	Sub-Type	Content	Semi-Barren
Main Timber Types Cont'd				
Sequoia Types		582.40		
Pt SP			582.40	
Miscellaneous		70.40		
L			70.40	
Subalpine Tree Types	12.80			
Foxtail-Whitebark Pine Types		12.80		
FF			12.80	

8. MARBLE FALLS

6316.30 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	12.80			
Ba			12.80	
Grassland	19.20			
Mdw			19.20	
Shrub Types	646.40			
Chamise		627.20		
Af			550.40	
Af Yw			76.80	
Semi-Barren				25.60
Chaparral		19.20		
Cb			19.20	
Woodland Types	1803.00			
Woodland-Chaparral		627.20		
C Cb			294.40	
CCb Cd			166.40	
Semi-Barren				89.60
CCb Yw			134.40	
CH Cb			32.00	
Woodland-Grassland		185.60		
D' Gr			160.00	
B Gr			25.60	
Woodland		1075.20		
B			38.40	
CB			57.60	
C			857.60	
Semi-Barren				153.60
CWAS			121.80	
Main Timber Types	3750.40			
Pine Types		1516.80		
J			12.80	
Semi-Barren				12.80
Y			448.00	
YB			172.80	
SY			774.40	
Semi-Barren				25.60
JAp			12.80	
JB			96.00	
Semi-Barren				64.00
Pine-Fir Types		755.20		
SYW			492.80	
SJW			262.40	

	Type Total	Sub-Total	Content	Semi-Barren
Main Timber Types Cont'd				
Fir Types		521.20		
W.			19.20	
SW			512.00	
Sequoia Types		947.20		
Dr SW			947.20	
Semi-Barren				38.40

9. FRY'S POINT

6566.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Shrub Types	4192.00			
Chamise		4153.60		
Af			3808.00	
Semi-Barren				192.00
Af Ama			256.00	
Af Yw			89.60	
Semi-Barren				12.80
Chaparral		38.40		
Ama			12.80	
Cb			12.80	
Cb Yw			12.80	
Woodland Types	2451.20			
Woodland-Chaparral		38.40		
CCb			25.60	
CCB H			12.80	
Woodland-Grassland		972.80		
D' Gr			934.40	
D Gr			38.40	
Woodland		1440.00		
P			121.60	
C			1036.80	
Semi-Barren				140.80
CWAŌ			153.60	
CWŌ			128.00	
Main Timber Types	12.80			
Pine Types		12.80		
Y			12.80	

10. MORO ROCK

8678.40 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	64.00			
Ba			64.00	
Grasslands	51.20			
Mdw			44.80	
Gr			6.40	
Shrub Types	1543.80			
Chamise		1376.00		
Af			275.20	
Af Cb			211.20	
Semi-Barren				32.00
Af Ama			889.60	
Chaparral		57.60		
Cb			57.60	
Timberland-Chaparral		115.20		
Ap Cco			38.40	
Ap Cco Gr			76.80	
Semi-Barren				57.60
Woodland Types	3225.60			
Woodland-Chaparral		153.60		
C Cb			108.80	
C Ama			44.80	
Woodland-Grassland		582.40		
D' Gr			377.60	
B Gr			204.80	
Woodland		2489.60		
B			121.60	
C B			160.00	
Semi-Barren				19.20
C			2112.00	
Semi-Barren				193.40
C B S			51.20	
C W S			44.80	
Main Timber Types	3782.40			
Pine Types		320.00		
J			12.80	
Y			25.60	
SY			25.60	
SYCb			147.20	
JAp			25.60	
SYAp			33.20	
Semi-Barren				64.00

10. MORO ROCK

	Type Total	Sub-Total	Content	Semi-Barren
Main Timber Types Cont'd				
Pine-Fir Types		1932.80		
SJW			1798.40	
Semi-Barren				108.80
JW Ap Cco			134.40	
Semi-Barren				51.20
Fir Types		691.60		
[illegible]			25.60	
[illegible]			6.40	
Semi-Barren				6.40
[illegible]			83.20	
SW			96.00	
Semi-Barren				6.40
W Ap Cco			281.60	
Semi-Barren				83.20
SW'			108.80	
Sequoia Types		928.00		
Pr S			928.00	
Subalpine Tree Types	6.40			
Foxtail-Whitebark Pine Types		6.40		
Ff			6.40	

11. ALTA MEADOW

11239.60 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	343?.00			
Ba			343?.00	
Grasslands	153.60			
Mdw			89.60	
Sx Gr			64.00	
Shrub Types	1369.60			
Chaparral		634.80		
Cb Av			128.00	
Cb Cc			108.80	
Cb Cc Qgs Ap			102.40	
Ama			102.40	
Ama Qgs			243.20	
Timberland-Chaparral		634.80		
Ap			12.80	
Ap Cco			44.80	
Semi-Barren				12.80
Ap Cco Cs			576.00	
Pe			19.20	
Pe Sx			32.00	
Woodland Types	1120.00			
Woodland-Chaparral		57.60		
Av B			57.60	
Woodland		1062.40		
B			64.00	
CB			300.80	
Semi-Barren				12.80
C			697.60	
Semi-Barren				44.80
Main Timber Types	4423.80			
Pine Types		1811.20		
J			10.80	
Y			730.80	
SY			128.00	
SYI			531.20	
YB			275.20	
YBAp			83.20	
Pine-Fir Types		1049.60		
SYF			57.60	
SJF			992.00	

11. ALTA MEADOW Cont'd

	Type Total	Sub-Total	Content	Semi-Barren
Main Timber Types Cont'd				
Fir Types		1563.00		
S			698.00	
W			371.20	
Semi-Barren				51.20
SW			274.80	
S Ap Cco			211.20	
W Ap Cco			172.80	
Subalpine Tree Types	633.60			
Foxtail-Whitebark Pine Types		633.60		
Fp			620.80	
Wp			12.80	
Lakes	96.00		96.00	

12. RIVER VALLEY

11264.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	4998.40			
Ba			4998.40	
Grasslands	224.00			
Mdw			121.60	
Sx Gr			102.40	
Semi-Barren				102.40
Shrub Types	1760.00			
Chaparral		160.00		
Ama			160.00	
Timberland-Chaparral		1600.00		
Ap			140.80	
Ap Cs			115.20	
Ap Cco			19.20	
Ap Pe Cs			499.20	
Semi-Barren				25.60
Cc Cs			51.20	
Atr Ap			140.80	
Cs			32.00	
Pe Cco			57.60	
Av			33.40	
Sx			505.60	
Woodland Types	576.00			
Woodland		576.00		
B			19.20	
CB			172.80	
C			384.00	
Main Timber Types	3027.20			
Pine Types		780.80		
J			44.80	
JB Ac			217.60	
Y			32.00	
YB			390.40	
Semi-Barren				57.60
YCP			96.00	
Pine-Fir Types		435.20		
SJW			102.40	
SYW			25.60	
SYWI			307.20	

	Type Total	Sub-Total	Content	Semi-Barren
Main Timber Types Cont'd				
Fir Types		1254.40		
S			505.60	
F			358.40	
SW			64.00	
SFb			294.40	
S Ap Cs			32.00	
Miscellaneous		556.80		
Jo Ap			320.00	
Semi-Barren				294.40
Jo Ap Cs Atr			102.40	
L			134.40	
Subalpine Tree Types	550.40			
Foxtail-Whitebark Pine Types		364.80		
Fp			268.80	
Wp			70.40	
Fp Wp			25.60	
Lodgepole-White Pine Type		185.60		
Jo			38.40	
F			108.80	
S			19.20	
L			19.20	
Lakes	128.00		128.00	

13. GRANITE CREEK

6169.60 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	2297.60			
Ba			2297.60	
Grasslands	38.40			
Maw			38.40	
Shrub Types	243.20			
Timberland-Chaparral		243.20		
Ap			19.20	
Ap Pe Cs			96.00	
Sx			128.00	
Woodland Types	102.40			
Woodland		102.40		
CB			102.40	
Main Timber Types	2112.00			
Pine Types		147.20		
J			38.40	
Semi-Barren				19.20
JB Ap			64.00	
J Ap			44.80	
Pine-Fir Types		832.00		
S J W			832.00	
Fir Types		1126.40		
S			376.30	
W			12.80	
S W			236.30	
Sequoia Types		6.40		
Sq W			6.40	
Subalpine Tree Types	1337.60			
Foxtail-Whitebark Pine Types		1337.60		
Fp			1337.60	
Lakes	38.40		38.40	

14. CLIFF CREEK

12320.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	3680.00			
Ba			3680.00	
Grasslands	390.40			
Mdw			6.40	
Gr			6.40	
Sx Gr			377.60	
Semi-Barren				332.80
Shrub Types	1248.00			
Timberland-Chaparral		1248.00		
Ap			19.20	
Ap Cco			217.60	
Ap Cco Cs			550.40	
Semi-Barren				38.40
Ap Cco Cs Pe			57.60	
Sx			64.00	
Pe Sx Cco			32.00	
Sx Ap Pe Cco			268.80	
Semi-Barren				19.20
Cs			38.40	
Woodland Types	76.80			
Woodland		76.80		
E			12.80	
CB			64.00	
Main Timber Types	6080.00			
Pine Types		396.80		
J			134.40	
Semi-Barren				12.80
SY			102.40	
SJ			160.00	
Pine-Fir Types		1235.20		
SY$\hat{W}$			134.40	
SJ$\hat{W}$			723.20	
SJ$\hat{W}$I			326.40	
J$\hat{W}$			51.20	
Fir Types		3635.20		
$\hat{S}$			2464.00	
Semi-Barren				352.00
$\hat{W}$			153.60	
S$\hat{W}$			870.40	
$\hat{S}$W'			147.20	

14. CLIFF CREEK Cont'd

	Type Total	Sub-Total	Content	Semi-Barren
Main Timber Types Cont'd				
Sequoia Types		390.30		
Br W			38.40	
Br S W			217.60	
Br J W			140.30	
Miscellaneous		416.10		
Jo			364.80	
Semi-Barren				364.80
L			51.20	
Subalpine Tree Types	838.40			
Foxtail-Whitbark Pine Types		838.40		
Fp			825.60	
Wp			12.80	
Lakes	6.40		6.40	

15. CASTLE-DOME-PARADISE CREEKS

1514?.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	800.00			
Ba			800.00	
Grasslands	153.60			
Mdw			102.40	
Gr			51.20	
Shrub Types	1932.80			
Chamise		716.80		
Af			716.80	
Chaparral		806.40		
Ama Qgs Ap			51.20	
Ama Qgs			307.20	
Cb Cc			243.20	
Cb			179.20	
Ama			25.60	
Timberland-Chaparral		409.60		
Ap			76.80	
Pe			32.00	
Ap Pe			38.40	
Ap Pe Cco			38.40	
Ap Cco			224.00	
Semi-Barren				57.60
Woodland Types	4172.80			
Woodland-Chaparral		108.80		
C Ap			51.20	
C L' Cb			57.60	
Woodland-Grassland		211.20		
D' Gr			121.60	
D' Gr H			6.40	
D D' Gr			83.20	
Woodland		3852.80		
B			83.20	
CB			1465.60	
C			2252.80	
Semi-Barren				83.20
C BA S			51.20	
Main Timber Types	3019.20			
Pine Types		1907.20		
J Semi-Barren			115.20	25.60
Y			390.40	
YB			332.80	
SY			601.60	
SYB			192.00	
SJ			172.80	
Semi-Barren	-43-			12.80
Y C B			102.40	

	Type Total	Sub-Total	Content	Semi-Barren
Main Timber Types Cont'd				
Pine-Fir Types		1561.60		
Y $\hat{W}$ Ap Pe			70.40	
Semi-Barren				6.40
S Y $\hat{W}$			1216.00	
Semi-Barren				51.20
SJ $\hat{W}$			256.00	
J $\hat{W}$			19.20	
Fir Types		4198.40		
$\hat{S}$			3270.40	
Semi-Barren				204.80
$\hat{W}$			108.80	
S $\hat{W}$			307.20	
$\hat{S}$ W'			512.00	
Semi-Barren				76.80
Sequoia Types		352.00		
B$_T$			6.40	
B$_T$ $\hat{W}$			231.60	
B$_T$ S $\hat{W}$			51.20	
B$_T$ Y $\hat{W}$			12.80	
Subalpine Tree Types	70.40			
Foxtail-Whitebark Pine Types		70.40		
Fe			70.40	

16. MILK RANCH PEAK

4211.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	38.40			
Ba			38.40	
Shrub Types	2278.40			
Chamise		1779.20		
Af			1779.20	
Chaparral		499.20		
Cb			467.20	
Cb Cc			32.00	
Woodland Types	1849.60			
Woodland-Chaparral		339.20		
C Cb			128.00	
CH Cb			211.20	
Woodland-Grassland		243.20		
D' Gr			83.20	
D' Gr H			160.00	
Woodland		1267.20		
B			140.80	
CB			70.40	
CBS			25.60	
C			832.00	
Semi-Barren				140.80
CAS			64.00	
CWS			134.40	
Main Timber Types	44.80			
Pine Types		44.80		
SY			44.80	

17. ATWELL MILL

10937.60 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	134.40			
Ba			134.40	
Grasslands	25.60			
Mdw			12.80	
Gr			12.80	
Cultivated	19.20		19.20	
Shrub Types	2649.60			
Chamise		428.80		
Af			172.80	
Af Ama			134.40	
C Af			121.60	
Chaparral		1996.80		
Cb			57.60	
Cb Cc			844.80	
Cb Ama			89.60	
Cb Apa			876.80	
Cb Ap			128.00	
Timberland-Chaparral		224.00		
Ap Cs			147.20	
Semi-Barren				12.80
Ap Cs Cco			76.80	
Woodland Types	1863.80			
Woodland-Grassland		44.80		
B Gr			44.80	
Woodland		1324.00		
B			38.40	
C			1792.40	
Semi-Barren				243.20
CS			44.80	
CYw			32.40	
Main Timber Types	6240.00			
Pine Types		2592.00		
Y			70.40	
YB			1911.20	
SY			172.80	
SJ			332.20	
Semi-Barren				76.80
SYI			172.80	
SJB			38.40	
SJI			243.20	

Main Timber Types Cont'd	Type Total	Sub-Total	Content	Semi-Barren
Pine-Fir Types		614.40		
JW			172.80	
SJW			377.60	
SWYI			64.00	
Fir Types		1331.20		
S			345.60	
Semi-Barren				25.60
W			147.20	
SW			428.80	
Semi-Barren				57.60
SWI			192.40	
SW'			224.00	
Semi-Barren				32.00
W Ap Cco			32.00	
W Ap Cs Cco			51.20	
Sequoia Types		1702.40		
B+ SW			1459.20	
B+ W			236.80	
B+			6.40	

18. TAR GAP

	Type Total	Sub-Total	Content	Semi-Barren
Barren	6.40			
Ba			6.40	
Shrub Types	390.40			
Chaparral		185.60		
Cb Cc			185.60	
Timberland-Chaparral		204.80		
Ap			64.00	
Ap Cco			19.20	
Cs Ap Pe			70.40	
Ap Bt J			32.00	
Cs			19.20	
Woodland Types	812.80			
Woodland		312.80		
B			70.40	
C			742.40	
Main Timber Types	3340.80			
Pine Types		518.40		
SY			263.80	
SYIB Ap Cco			249.60	
Pine-Fir Types		1132.80		
SYW			51.20	
SJW			576.00	
JW			454.40	
JW Ap			51.20	
Fir Types		1228.80		
S			416.00	
SW			761.60	
SWI			51.20	
Sequoia Types		460.80		
Bt SW			460.80	
Subalpine Tree Types	38.40			
Foxtail-Whitebark Pine Types		38.40		
Fp			38.40	

19. EDEN AREA

10246.40 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	204.80			
Ba			204.80	
Grasslands	108.80			
Mdw			108.80	
Shrub Types	608.00			
Chaparral		608.00		
Cb			64.00	
Cb Cc			179.20	
Cb Cc Av			364.80	
Woodland Types	1459.20			
Woodland-Chaparral		108.80		
Ccb			108.80	
Woodland		1350.40		
B			160.00	
C			1171.20	
Semi-Barren				51.20
CS̄			19.20	
Main Timber Types	7865.60			
Pine Types		1081.60		
J			76.80	
Y			281.60	
YP			243.20	
SY			480.00	
Pine-Fir Types		1203.20		
SŶW̄			249.60	
SJW̄			889.60	
Semi-Barren				70.40
CSŶW̄			64.00	
Fir Types		4121.60		
Ŝ			3553.40	
Semi-Barren				217.60
ŜW̄			352.00	
Semi-Barren				51.20
SŴ			211.20	
Semi-Barren				32.00
Sequoia Types		1004.80		
Br SŴ			1004.80	
Semi-Barren				57.60
Miscellaneous		454.40		
L			217.60	
LŜ			236.80	

20. HOCKETT MEADOWS

3357.60 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	1152.00			
Ba			1152.00	
Grasslands	249.60			
Mdw			193.40	
Gr			19.20	
Sx Gr			32.00	
Shrub Types	51.20			
Timberland-Chaparral		51.20		
Ap			12.80	
Ap Cco			38.40	
Main Timber Types	5651.20			
Pine-Fir Types		172.80		
JW			115.20	
" Semi-Barren				38.40
JW Ap			57.60	
Fir Types		3270.40		
S			2752.00	
" Semi-Barren				19.20
SW			518.40	
Miscellaneous		2208.00		
L			2176.00	
L Jo			32.00	
Subalpine Tree Types	1723.00			
Lodgepole-White Pine Types		281.60		
LW			217.60	
L Fr			64.00	
Foxtail-Whitebark Pine Types		1446.40		
Fr			1446.40	
Lakes	25.60		25.60	

21. MINERAL KING AREA

16915.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	5785.60			
Ba			5785.60	
Grasslands	403.20			
Mdw			64.00	
Sx Gr			339.20	
Shrub Types	1369.60			
Timberland-Chaparral		1369.60		
Ap			70.40	
Pe			25.60	
Ap Pe			134.40	
Ap Cco			396.80	
Ap Cs Cco			153.60	
Semi-Barren				38.40
Ap Cs Cco Atr			166.40	
Ap Cco Atr			153.60	
Cs Cco			25.60	
Atr			179.20	
Ap Br J			38.40	
Sx			70.40	
Main Timber Types	6392.80			
Pine Types		499.20		
J			123.00	
Semi-Barren				64.00
S J			281.60	
S J I			89.60	
Pine-Fir Types		896.00		
S J $\hat{W}$			896.00	
Semi-Barren				25.60
Fir Types		5024.00		
$\hat{F}$			76.80	
$\hat{S}$			3104.00	
Semi-Barren				89.60
S $\hat{W}$			608.00	
Semi-Barren				25.60
$\hat{S}$ W			985.60	
Semi-Barren				33.20
$\hat{S}$ Ap Cs Cco			249.60	
Sequoia Types		320.00		
Br S W			320.00	
Miscellaneous		153.60		
Jo			147.20	
Semi-Barren				147.20
L			6.40	

21. MINERAL KING AREA Cont'd

	Type Total	Sub-Total	Content	Semi-Barren
Subalpine Tree Types	2291.20			
Foxtail-Whitebark Pine Types		2291.20		
Fp			2112.00	
S Fp			83.20	
Wp			96.00	
Lakes	172.80		172.80	

22. SOUTH FORK MEADOWS

9623.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	492.30			
Ba			492.30	
Grasslands	576.00			
Mdw			576.00	
Shrub Types	12.30			
Timberland-Chaparral		12.30		
Ap Cs Cco			12.30	
Semi-Barren				12.30
Main Timber Types	7795.20			
Fir Types		3872.00		
$\hat{S}$			3110.40	
Semi-Barren				307.20
$L\hat{S}$			761.60	
Miscellaneous		3923.20		
L			3923.20	
Semi-Barren				25.60
Subalpine Tree Types	742.40			
Foxtail-Whitebark Pine Types		742.40		
Fp			742.40	
Lakes	64.00		64.00	

23. CLOUGH CAVE

1445l.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	268.80			
Ba			268.80	
Grasslands	128.00			
Mdw			96.00	
Gr			32.00	
Shrub Types	1177.60			
Chamise		70.40		
Af			70.40	
Chaparral		806.40		
Cb			51.20	
Cb Cc			416.00	
Cb Cc Cd			25.60	
Cb Ogs			313.60	
Timberland-Chaparral		300.80		
Ap			192.00	
Ap Cs			57.60	
Ap Cco Cs			51.20	
Semi-Barren				12.80
Woodland Types	3014.40			
Woodland-Grassland		287.[illegible]		
P' Gr			288.00	
Woodland		2726.4[illegible]		
B			83.20	
PI			76.80	
Semi-Barren				6.40
CB			473.60	
C			1949.20	
Semi-Barren				236.80
CI			57.60	
SCdA			96.00	
Main Timber Types	9862.40			
Pine Types		1440.00		
J			83.20	
Y			243.20	
YB			339.20	
YIB			19.20	
SJ			236.80	
Semi-Barren				57.60
SJAp			518.40	
Semi-Barren				102.00

	Type Total	Sub-Total	Content	Semi-Barren
Main Timber Types Cont'd				
Pine-Fir Types		2630.40		
$\hat{Y}\hat{F}$			38.40	
$S\hat{Y}\hat{F}$			57.60	
$SJ\hat{F}Ap$			33.20	
$SJ\hat{F}$			2272.00	
Semi-Barren				160.00
$J\hat{F}$			179.20	
Fir Types		3219.20		
$\hat{S}$			1971.20	
Semi-Barren				819.20
$S\hat{S}$			192.00	
$\hat{S}W$			646.40	
Semi-Barren				128.00
$\hat{S}L$			134.40	
$S\hat{P}$			256.00	
Semi-Barren				96.00
$\hat{S}\hat{F}$			19.20	
Secondis Types		2028.80		
Br $\hat{F}$			25.60	
Br $S\hat{F}$			1779.20	
Br $SJ\hat{F}$			172.80	
Br $SY\hat{F}$			51.20	
Miscellaneous		544.00		
L			544.00	
Semi-Barren				38.40

24. DILLON WOOD

2790.40 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Grasslands	25.60			
Mdw			25.60	
Shrub Types	70.40			
Timberland-Chaparral		70.40		
Cco Ap Cs			70.40	
Main Timber Types	2694.40			
Pine Types		384.00		
J			19.20	
J Ap			64.00	
Semi-Barren				64.00
SJ			64.00	
SJ Ap			236.80	
Semi-Barren				25.60
Pine-Fir Types		569.60		
SJW			300.80	
JS Ap Cco			268.80	
Semi-Barren				172.80
Fir Types		787.20		
S			416.00	
SW			160.00	
SW Ap Cco			135.60	
Semi-Barren				57.60
SW'			25.60	
Sequoia Types		839.60		
Br SW			839.60	
Miscellaneous		64.00		
L			64.00	

25. SUMMIT LAKE

1132.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	211.20			
Ba			211.20	
Grasslands	19.20			
Mdw			19.20	
Main Timber Types	896.00			
Fir Types		800.00		
S			422.40	
Sf Ap Cco			339.20	
LS			38.40	
Miscellaneous		96.00		
L			96.00	
Lakes	6.40		6.40	

26. QUINN COUNTRY

3270.40 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	134.40			
Ba			134.40	
Grasslands	51.20			
Mdw			51.20	
Shrub Types	230.40			
Timberland-Chaparral		230.40		
Ap Cs Cco			192.00	
Semi-Barren				96.00
Ap Cs Atr			38.40	
Main Timber Types	2598.40			
Pine Types		179.20		
J			64.00	
Semi-Barren				44.80
SJ			115.20	
Semi-Barren				96.00
Fir Types		2041.60		
Ŝ			1875.20	
Semi-Barren				518.40
F̂			102.40	
Semi-Barren				19.20
LŜ			64.00	
Miscellaneous		377.60		
L			294.40	
LF̂A			83.20	
Subalpine Tree Types	243.20			
Foxtail-Whitebark Pine Types		243.20		
Fp			243.20	
Lakes	12.80		12.80	

27. KERN STATION

10432.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	57.60			
Ba			57.60	
Grasslands	108.80			
Mdw			44.80	
L Mdw			64.00	
Shrub Types	147.20			
Timberland-Chaparral		147.20		
Ap Cs Sx			147.20	
Main Timber Types	8915.20			
Pine Types		4563.20		
J			2464.00	
Semi-Barren				576.00
S J			684.80	
Semi-Barren				12.80
J Ap			1414.40	
Semi-Barren				928.00
Pine-Fir Types		2828.80		
J $\hat{W}$			1964.80	
Semi-Barren				1030.40
S J $\hat{W}$			249.60	
Semi-Barren				249.60
J $\hat{S}$			614.40	
Semi-Barren				64.00
Fir Types		1164.80		
$\hat{S}$W			524.80	
Semi-Barren				300.80
$\hat{S}$ L			640.00	
Miscellaneous Types		358.40		
L			262.40	
L $\bar{D}$			96.00	
Subalpine Tree Types	1203.20			
Foxtail-Whitebark Pine Types		1203.20		
Fp			787.20	
Fp $\hat{S}$			416.00	

23. COYOTE PASS

10521.60 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	3948.80			
Ba			3948.80	
Grasslands	268.80			
Mdw			268.80	
Main Timber Types	1792.00			
Pine Types		371.20		
J			147.20	
J Ap			224.00	
Semi-Barren				12.80
Pine-Fir Types		6.40		
J S			6.40	
Semi-Barren				6.40
Fir Types		588.80		
S W'			499.20	
S L			89.60	
Miscellaneous		825.60		
L			825.60	
Subalpine Tree Types	4454.40			
Lodgepole-White Pine Types		352.00		
L			352.00	
Foxtail-Whitebark Pine Types		4102.40		
Ff			4102.40	
Lakes	57.60		57.60	

29. FRANKLIN PASS

11238.40 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	4672.00			
Ba			4672.00	
Grasslands	268.80			
Mdw			268.80	
Shrub Types	102.40			
Timberland-Chaparral		102.40		
Sx			102.40	
Main Timber Types	1708.80			
Fir Types		83.20		
S			83.20	
Semi-Barren				51.20
Miscellaneous Types		1625.60		
W' Cs			134.40	
Semi-Barren				134.40
L			1491.20	
Subalpine Tree Types	4236.80			
Lodgepole-White Pine Types		44.80		
L			44.80	
Foxtail-Whitebark Pine Types		4192.00		
Fp			4038.40	
L Fp			83.20	
Fp W'			70.40	
Lakes	249.60		249.60	

30. MORAINE LAKE

11507.60 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	1036.80			
Bu			1036.80	
Grasslands	83.20			
Mdw			64.00	
Gr			19.20	
Shrub Types	102.40			
Timberland-Chaparral		102.40		
Atr Ap			57.60	
Semi-Barren				57.60
Atr			19.20	
Sx			25.60	
Main Timber Types	4531.20			
Pine Types		1894.40		
J Ap Cs			1894.40	
Semi-Barren				1158.40
Fir Types		633.60		
Ŝ			6.40	
Semi-Barren				6.40
Ŝ W'			236.80	
Semi-Barren				236.80
Ŝ W' L			390.40	
Semi-Barren				262.40
Miscellaneous Types		2003.20		
L			1817.60	
L Ŝ			185.60	
Subalpine Tree Types	5690.00			
Lodgepole-White Pine Types		19.20		
L Ŝ			19.20	
Foxtail-Whitebark Pine Types		5670.80		
Fp			4384.40	
Fp Ŝ			74.80	
Fp W'			1196.80	
Fp L W'			44.80	
Lakes	64.00		64.00	

31. CHAGOOPA FALLS

10963.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	6.40			
Ba			6.40	
Grasslands	179.20			
Mdw			134.40	
Gr			12.80	
L Mdw			32.00	
Shrub Types	76.80			
Timberland-Chaparral		76.80		
Ap Cco Sx			76.80	
Main Timber Types	9273.60			
Pine Types		2479.40		
J			691.20	
J Ap			89.60	
J Ap Cs			1100.80	
Semi-Barren				294.40
S J			537.60	
Semi-Barren				12.80
J L			51.20	
Pine-Fir Types		1728.00		
J $\hat{W}$			1196.30	
Semi-Barren				166.40
SJ $\hat{W}$			44.80	
J $\hat{W}$P			294.40	
Semi-Barren				294.40
S J $\hat{W}$ P			38.40	
Semi-Barren				38.40
S J $\hat{S}$			153.60	
Fir Types		1267.20		
$\hat{W}$			108.80	
Semi-Barren				19.20
L $\hat{S}$			288.00	
$\hat{S}$ W'			531.20	
Semi-Barren				403.20
$\hat{S}$ W' L			339.20	
Semi-Barren				339.20
Miscellaneous Types		3808.00		
Jo Cl			652.80	
Semi-Barren				652.80
L			2707.20	
L $\hat{B}$			396.80	
L $\hat{S}$			51.20	

	Type Total	Sub-Total	Content	Semi-Barren
Subalpine Tree Types	1427.20			
Lodgepole-White Pine Types		160.00		
L S			32.00	
L S W'			128.00	
Foxtail-Whitebark Pine Types		1267.20		
Fp			889.60	
Fp S			249.60	
Fp W'			128.00	

32. KERN HOT SPRINGS

15232.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	1497.60			
Ba			1497.60	
Grasslands	204.80			
Mdw			153.60	
Gr			51.20	
Main Timber Types	3635.20			
Pine Types		1452.80		
J Ap			1081.60	
Semi-Barren				1081.60
J Jo Ap Cl			51.20	
J Jo QcCl			320.00	
Semi-Barren				320.00
Pine-Fir Types		1062.40		
J F			1062.40	
Semi-Barren				992.00
Fir Types		19.20		
F			19.20	
Semi-Barren				19.20
Miscellaneous Types		1100.80		
Jo Cl			345.60	
Semi-Barren				345.60
L			755.20	
Subalpine Tree Types	9817.60			
Foxtail-Whitebark Pine Types		9817.60		
Fp			9657.60	
Fp Ap Cs			160.00	
Lakes	76.80		76.80	

33. SIBERIAN PASS

8364.80 Acres

	Type Total	Sub-Total	Content	Semi-barren
Barren	2758.40			
Ba			2758.40	
Grasslands	576.00			
Mdw			179.20	
Gr			396.80	
Main Timber Types	736.00			
Miscellaneous Types		736.00		
L			736.00	
Subalpine Tree Types	4288.00			
Foxtail-Whitebark Pine Types		4288.00		
Fp			4288.00	
Lakes	6.40		6.40	

34. MT. LANGLEY

13590.80 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	10163.20			
Ba			10163.20	
Grasslands	192.00			
Mdw			121.60	
Gr			70.40	
Main Timber Types	153.60			
Miscellaneous Types		153.60		
L			153.60	
Subalpine Tree Types	2572.80			
Lodgepole-White Pine Types		262.40		
L			262.40	
Foxtail-Whitebark Pine Types		2310.40		
Fp			2284.80	
Fp L			25.60	
Lakes	499.20		499.20	

35. CRABTREE MEADOW

9772.80 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	1113.60			
Ba			1113.60	
Grasslands	563.20			
Mdw			352.00	
Gr.			211.20	
Semi-Barren				102.40
Main Timber Types	787.20			
Miscellaneous Types		787.20		
L			787.20	
Subalpine Tree Types	7302.40			
Lodgepole-White Pine Types		390.40		
L			390.40	
Foxtail-Whitebark Pine Types		6912.00		
Fp			6771.20	
Fp L			140.80	
Lakes	6.40		6.40	

3923.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	1408.00			
Ba			1408.00	
Grasslands	51.20			
Mdw			51.20	
Shrub Types	198.40			
Timberland-Chaparral		198.40		
Cl			70.40	
Semi-Barren				70.40
Ap Cco			51.20	
Semi-Barren				25.60
Ap Cs Sx			51.20	
Sx			25.60	
Main Timber Types	3776.00			
Pine Types		505.60		
J Ap			409.60	
Semi-Barren				390.40
J Ap Cco			96.00	
Semi-Barren				57.60
Pine-Fir Types		353.40		
J $\hat{F}$ Ap			353.40	
Semi-Barren				134.40
Fir Types		652.80		
$\hat{F}$			12.80	
$\hat{W}$ Ap			249.60	
$\hat{W}$ Ap Pe			108.80	
$\hat{W}$ Ap Pe Cco			140.80	
Semi-Barren				108.80
$\hat{W}$ Sx			140.80	
Miscellaneous Types		2259.20		
Jo Cl			1971.20	
Semi-Barren				1971.20
L			211.20	
Lp L			76.80	
Subalpine Tree Types	3468.80			
Lodgepole-White Pine Types		320.00		
L			320.00	
Foxtail-Whitebark Pine Types		3148.80		
Fp			1907.20	
Fp V'			531.20	
Fp L			710.40	
Lakes	25.60		25.60	

37. KAWEAH BASIN

12243.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	7193.60			
Ba			7193.60	
Grasslands	153.60			
Mdw			153.60	
Shrub Types	32.00			
Timberland-Chaparral		32.00		
Ap Cs			32.00	
Main Timber Types	972.80			
Pine Types		300.80		
J Ap Cs			300.80	
Semi-Barren				288.00
Miscellaneous Types		672.00		
L			672.00	
Subalpine Tree Types	3636.40			
Lodgepole-White Pine Types		160.00		
L			160.00	
Foxtail-Whitebark Pine Types		3526.40		
Fp			3251.20	
Fp L			256.00	
Fp Wp			12.80	
Wp			6.40	
Lakes	204.80		204.80	

38. BIG ARROYO

12443.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	6771.20			
Ba			6771.20	
Grasslands	441.60			
Mdw Semi-Barren			422.40	262.40
Sx Gr			19.20	
Shrub Types	76.80			
Timberland-Chaparral		76.80		
Sx			25.60	
Ap Atr Cs			51.20	
Main Timber Types	1254.40			
Pine Types		300.80		
J Ap Cs			96.00	
Semi-Barren				96.00
J Atr Ap Cs			204.80	
Semi-Barren				70.40
Miscellaneous Types		953.60		
L			953.60	
Subalpine Tree Types	3699.20			
Lodgepole-White Pine Types		710.40		
L			569.60	
L Wp			140.80	
Foxtail-Whitebark Pine Types		2988.80		
Fp			2784.00	
Fp L			204.80	
Lakes	204.80		204.80	

39. TRIPLE DIVIDE PEAK

3475.20 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	3200.00			
Ba			3200.00	
Grasslands	140.00			
Mdw			140.00	
Subalpine Tree Types	44.80			
Lodgepole-White Pine Types		32.00		
L			32.00	
Foxtail-Whitebark Pine Types		12.80		
Fp L			12.80	
Lakes	89.60		89.60	

40. MILESTONE

12710.40 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	9075.20			
Ba			9075.20	
Grasslands	179.20			
Mdw			179.20	
Shrub Types	172.80			
Timberland-Chaparral		172.80		
Ap Pe			44.80	
Sx			44.80	
A			83.20	
Main Timber Types	64.00			
Miscellaneous Types		64.00		
Jo			51.20	
Jo Cl			12.80	
Semi-Barren				12.80
Subalpine Tree Types	3001.60			
Lodgepole-White Pine Types		1536.00		
L			1536.00	
Foxtail-Whitebark Pine Types		1465.60		
Fp			723.20	
Fp L			57.60	
L Fp W			25.60	
Fp W			64.00	
Wp			595.20	
Lakes	217.60		217.60	

41. TYNDALL CREEK

14309.60 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	3630.00			
Ba			3630.00	
Grasslands	409.60			
Mdw			70.40	
L Mdw			33.20	
Gr			211.20	
Sx Gr			44.80	
Shrub Types	723.20			
Timberland-Chaparral		723.20		
Ap			275.20	
Semi-Barren				217.60
Ap Sx			115.20	
Ap Cl			128.00	
Semi-Barren				83.20
Ap Atr			96.00	
Semi-Barren				96.00
Hdd Atr			32.00	
Sx			76.80	
Main Timber Types	1977.60			
Pine Types		243.20		
J			38.40	
J Ap			204.80	
Pine-Fir Types		12.80		
J W Ap			12.80	
Fir Types		102.40		
W Ap			102.40	
Semi-Barren				25.60
Miscellaneous Types		1619.20		
Jo			19.20	
Jo Cl			550.40	
Semi-Barren				550.40
Jo Ap Cl			300.80	
Semi-Barren				275.20
L			710.40	
LW			38.40	

41. TYNDALL CREEK Cont'd

	Type Total	Sub-Total	Content	Semi-Barren
Subalpine Tree Types	7852.80			
Lodgepole-White Pine Types		774.40		
L			774.40	
Foxtail-Whitebark Pine Types		7078.40		
F_F			4172.80	
F_F W'			691.60	
F_F W'Ŝ			96.00	
F_f L			473.60	
F_f W_F			800.00	
F_F Ap Cs			275.20	
F_F Jo			44.80	
W_f			614.40	
Lakes	166.40		166.40	

42. WRIGHT LAKES

11552.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	6060.80			
Ba			6060.80	
Grasslands	1017.60			
Mdr			294.40	
Gr.			723.20	
Semi-Barren				345.60
Shrub Types	83.20			
Timberland-Chaparral		83.20		
Sx			83.20	
Main Timber Types	460.80			
Miscellaneous Types		460.80		
L			460.80	
Subalpine Tree Types	3737.60			
Lodgepole-White Pine Types		1580.80		
L			1580.80	
Foxtail-Whitebark Pine Types		2156.80		
Fp			1984.00	
Fp L			64.00	
Fp Wp			108.80	
Lakes	192.00		192.00	

43. WALLACE LAKE

6720.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	6054.40			
Ba			6054.40	
Grasslands	57.60			
Mdw			57.60	
Subalpine Tree Types	204.80			
Lodgepole-White Pine Types		140.80		
L			140.80	
Foxtail-Whitebark Pine Types		64.00		
Fp			12.80	
L Fp			19.20	
Wp Fp L			19.20	
Wp			12.80	
Lakes	403.20		403.20	

44. DIAMOND MESA

7468.30 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	6400.00			
Ba			6400.00	
Subalpine Tree Types	672.00			
Foxtail-Whitebark Pine Types		672.00		
Fp Wp			12.80	
Wp			659.20	
Lakes	396.80		396.80	

KERN DRAINAGE

191968.00 Acres

	Type Total	Sub-Total	Content	Semi-Barren
Barren	75097.60			
Ba			75097.60	
Grasslands	4896.00			
Mdw			2956.80	
Semi-Barren				262.40
L Mdw			179.20	
Gr			1696.00	
Semi-Barren				518.40
Sx Gr			64.00	
Shrub Types	1715.20			
Timberland-Chaparral		1715.20		
Ap			275.20	
Semi-Barren				217.60
Ap Cs			32.00	
Ap Cs Sx			198.40	
Ap Cco			51.20	
Semi-Barren				25.60
Ap Cco Sx			76.80	
Ap Pe			44.80	
Ap Sx			115.20	
Ap Cl			128.00	
Semi-Barren				83.20
Ap Atr			153.60	
Semi-Barren				153.60
Ap Atr Cs			51.20	
Atr			19.20	
Hdd Atr			32.00	
Cl			70.40	
Semi-Barren				70.40
Sx			384.00	
A			83.20	
Main Timber Types	40038.00			
Pine Types		12102.00		
J			3340.80	
Semi-Barren				576.00
J Ap			3424.00	
Semi-Barren				2502.40
J Ap Cco			96.00	
Semi-Barren				57.60
J Ap Cs			3392.00	
Semi-Barren				1836.80
J Atr Ap Cs			204.80	
Semi-Barren				70.40
J Jo Ap Cl			51.20	
J Jo Qc Cl			320.00	
Semi-Barren				320.00

	Type Total	Sub-Total	Content	Semi-Barren
Main Timber Types Cont'd				
Pine Types Cont'd				
S J			1222.40	
Semi-Barren				25.60
J L			51.20	
Pine-Fir Types		5996.80		
J W			4224.00	
Semi-Barren				2188.80
J W Ap			371.20	
Semi-Barren				134.40
S J W			294.40	
Semi-Barren				249.60
J W P			294.40	
Semi-Barren				294.40
S J W P			38.40	
Semi-Barren				38.40
J S			620.80	
Semi-Barren				70.40
S J S			153.60	
Fir Types		4512.00		
W			140.80	
Semi-Barren				38.40
W Ap			352.00	
Semi-Barren				25.60
W Ap Pe			108.80	
W Ap Pe Cco			140.80	
Semi-Barren				108.80
W Sx			140.80	
S			89.60	
Semi-Barren				57.60
S L			1017.60	
S W'			1792.00	
Semi-Barren				940.80
S W' L			729.60	
Semi-Barren				601.60
Miscellaneous Types		17427.20		
Jo Cl			3532.80	
Semi-Barren				3532.80
Jo			70.40	
Jo Ap Cl			300.80	
Semi-Barren				275.20
L			12544.00	
W'Cs			134.40	
Semi-Barren				134.40
P_F L			76.80	
L D			492.80	
L S			236.80	
L W			38.40	

	Type Total	Sub-Total	Content	Semi-Barren
Subalpine Tree Types	67360.40			
Lodgepole-White Pine Types		6483.20		
L $\hat{S}$			51.20	
L			6163.20	
L $\hat{S}$ W'			128.00	
L W'			140.80	
Foxtail-Whitebark Pine Types		60877.20		
F_F			52038.80	
F_F $\hat{S}$			710.40	
F_F W'			2528.00	
F_F L W'			44.80	
F_F L			2048.00	
F_F W' $\hat{S}$			96.00	
F_F Ap Cs			435.20	
F_F Jo			44.80	
W_F F_F L			44.80	
W_F F_F			998.40	
W_F			1838.00	
Lakes	2860.80		2860.80	

Lost Grove (57.60 acres) (10 or 15 trees over ten feet in diameter)
A small but exceedingly beautiful grove. The loveliest of all the small groves that are accessible to the tourist.

Muir Grove (294.40 acres) (Number of trees not estimated)
This grove has been reduced in size in the mapping as it was found that a gap of more than a half mile intervenes between it and the portion south which I am calling the Pine Ridge Grove. Muir Grove is to be classed with Giant Forest and Garfield Grove in its beauty and size of trees.

Pine Ridge Grove (108.80 acres) (No estimate of number of trees)
Formerly considered a part of Muir Grove but separated from it by more than a half mile of pine and fir forest. Many large trees are found here, but no estimates of numbers were made.

Skagway Grove (44.80 acres) (No estimate of trees)
This is a small grove lacking the beauty of the higher forests but of interest from the ecological standpoint as it occupies a lower elevation and is subject to periodical burning. A small group of Sequoias isolated from the main body is found 500 feet to the south of the grove.

Little Baldy Grove (non-existent)
The supposed location of this grove, upon examination, showed complete absence of Sequoias but the presence of several large Incense Cedars, which are easily mistaken for Big Trees.

Halstead Grove (70.40 acres) (No estimate of trees)
This grove probably should be renamed Suwanee Grove as the original Suwanee Grove was found to be non-existent. It is located on neither Halstead nor Suwanee drainages but on the small creek that enters the Marble Fork just below the Marble Fork Bridge.

Suwanee Grove (Non-existent)
This grove was mapped on the 1933 Master Plan as occurring on the next drainage west of Halstead Meadow. Study of the area determined that the presence of Incense Cedars in large numbers and their close similarty to the Big Tree had been responsible for the supposed grove of trees. It is suggested that the name Suwanee be transferred to the Halstead Grove inasmuch as the road and trail signs are so labeled.

Giant Forest (2387.20 acres) (Number of trees not estimated)
Giant Forest is far and away the finest stand of Sequoias accessible to the motoring public, and will no doubt remain in the Public's eye as the outstanding growth of Big Tree, but to the hiker and lover of our mountain wilderness areas the Garfield Grove will probably be the most beautiful. Included in the Giant Forest area are two small groves at a lower elevation and to the northwest of Beetle Rock. A few of these trees are found just below the Colony Mill Road, about a mile or a half mile down stream from the Bridge.

Sequoia Grove Map

Omitted

Castle Rock Groves (345.60 acres) (No estimate of number of trees)
Originally listed on official maps as a single grove with ten trees over ten feet, the newest study shows 4 groves with a much larger acreage. The trees in this unit are much scattered but of large size. The Sugar Pine is absent in about 80 percent of the area.

Redwood Meadow Groves (384.00 acres) (No estimate of trees)
This group includes three groves which were formerly considered separate units; Redwood Meadow, Little Redwood Meadow and Cliff Creek Groves. Since they are a unit on the area they have been mapped and grouped as one group. The trees in the vicinity of Redwood Meadow are splendid specimens and are surrounded by abundant reproduction. Standing Sequoias that are dead are a rarity in the park, and here at Redwood Ranger Station are five gigantic dead sticks standing on the western edge of the meadow.

Granite Creek Grove (6.40 acres) (8 trees 1 to 7 feet in diameter)
Possibly this group should not be dignified by the title of "grove". However, it is a very young stand with abundant reproduction and is of considerable ecological interest in that it appears to be one point where the Sequoia has gained a new foothold and is successfully propagating itself. This small group is botanically an extension of the Redwood Meadow Grove, but is actually separated from it by 300 or 400 feet.

East Cliff Creek Grove (12.80 acres) (10 trees over 10 feet in diameter)
A new grove with some very beautiful trees. It is located in the second drainage about 1 mile (airline) south of Redwood Station. A large 8 foot tree stands isolated above the grove about 400 feet up the draw.

Two individual trees were found in isolated positions up Cliff Creek: one, 2 miles south of the Redwood Station; the other, a half mile southeast of the first. Both trees are comparatively young (about 2 to 3 feet in diameter) and show no evidence of abnormality. They seem to be recent arrivals in their respective areas and as such would tend to indicate a spreading of the species in the Cliff Creek drainage. No evidence could be found of any former stand of the species in these two areas, therefore, they do not seem to be relics.

Squirrel Creek Grove (19.20 acres) (6 or 7 over ten feet)
This is a very small grove with few trees, and is located within a small area on the Oriole Road. The bulk of what was formerly considered Squirrel Grove lies a half mile above and to the northeast.

Paradise Ridge Grove (211.20 acres) (No estimate of trees)
Formerly considered a part of Squirrel Grove but actually separated from it by a half mile of forest. This is a very beautiful grove, ranking with Muir Grove in size and beauty of trees. A very large hollow, down tree contains the initials of visitors for many years back.

Isolated from this grove by only a few hundred feet, and across the ridge on the very headwaters of Paradise Creek, are 4 or 5 medium sized Sequoias growing in a nearly barren area. These trees deserve close study, especially as to their annual growth and whether or not they are producing viable seeds.

Oriole Grove (19.20 acres) (13 trees over ten feet in diameter)
This new grove is about one-half mile southeast of Oriole Lodge. The easiest route of approach is to follow the trail toward the site of the Army plane crash of 1932, and turn up the canyon to the left about one-half mile before coming to the site of the crash. Reproduction in this grove was relatively abundant.

Redwood Creek Grove (121.80 acres) (No estimate of number of trees)
This grove has been reduced in size from that shown on the official maps of the park. In contrast to Atwell Grove, the trees are very scattered. Many very large trees are found in this grove.

Atwell Grove (1312 acres) (No estimate of number of trees)
This grove is greatly enlarged over the original area as shown on official maps in the Master Plan. Atwell Grove ranks in beauty and size of trees with Muir Grove. Study of this grove will show many trees over ten feet in diameter. The reproduction in the area is abundant in some places and entirely absent in others. The highest known Sequoia grows above the top edges of the Atwell Grove at 8800 feet.

East Fork Groves (473.60 acres in park; 320.0 in National Forest)
East Fork Grove proper was at one time a solid unit, but a heavy burn occurred upwards of 40 years ago which left a ridge of chaparral down the middle of the type. A small grove upstream and opposite Silver City is included in the total for this grove.

Horse Creek Grove (89.60 acres) (about 70 trees over 10 feet)
Discovered by Ranger Brooks in the spring of 1933 and first explored by Brooks and Frost in fall of 1933. A large number of well formed trees on a very steep mountain side.

Cahoon Creek Grove (19.20 acres) (3 over 10 feet)
A few trees in the drainage west of Horse Creek Grove that are very scattered but all in the stream bottom.

Eden Grove (864.00 acres) (No estimate of trees)
This grove is unique in that the trees are very scattered throughout the area. Few groups of trees are to be found. Many large trees are known to be present, however.

Coffeepot Canyon Grove (32.00 acres) (2 or 3 trees over 10 feet)
A very disappointing grove; very scattered.

Case Mountain Grove (140.00 acres) (No estimate of trees)
Not entered for survey.

New Case Mountain Grove (32.00 acres) (No estimate of number of trees)
Not entered for survey. Probably only 4 or 5 trees over ten feet in diameter.

Surprise Grove (32.00 acres) (No estimate of number of trees)
Small and mediocre grove.

Homer's Nose Grove (192.00 acres) (No estimate of trees)
Not entered for study, but apparently a grove of very many large trees. This grove is located in the head of Cedar Creek, was formerly known as South Fork (North). A group of Sequoias is found lower down on the drainage at Cedar Flat on the trail.

South Fork (North) (51.20 acres) (No estimate of trees)
Formerly known as South Fork (South).

South Fork Grove (390.40 acres) (No estimate of number of trees)
A sizable grove with many very large trees in it.

Dillon Wood Grove (864.00 acres in park; 1120 acres in National Forest)

Garfield Grove (1356.80 acres) (No estimate of number of trees)
Dillon and Garfield Groves are a unit, having a substantial connection across Garfield Gap. In many cases I have found that people who know the many Sequoia groves in the Sierra feel that Garfield Grove is the most beautiful. The combined acreages of Garfield and Dillon come very close to the total acreage of Giant Forest.

Devil's Canyon Grove (6.4 acres inside and 25.6 acres outside the old park line. The new boundary includes all).
A small and relatively uninteresting grove. No estimate has been made of the size of trees contained in it.

Dennison Grove (25.6 acres in and 12.80 acres out of the park)
Small and uninteresting grove with few trees.

Highest Sequoia in park
Growing at an elevation of 8800 feet above sea level. This tree is 140 feet high and 13.7 feet in diameter at 7 feet. The tree bears cones which are apparently slightly smaller than normal. It has not been determined whether or not the seeds are viable. The tree is about 800 to 1000 feet above the Atwell Grove and is solitary.

Lowest Sequoia in park
Growing at an elevation of 3500 feet above sea level. This tree is located in the river bed and is no doubt water-carried to its present location. The tree is columnar in form and stands about 75 feet high.

Two other trees have been found down stream and outside of the park; one, at 300 feet just below Johnson's Ranch; the other, at the foot of Devil's Canyon or about 2900 feet.

Total Acreage of Sequoias in park - 9804.80

Total Acreage of Sequoias Mapped - 11,443.40

Legend For Grazing Map

Grasslands (Dixon's #353)

Both dry grasslands and meadows

Woodland-Grasslands (Dixon's #324)

Mixture of Oaks and grazing land.

Sagebrush (Faber's #44)

Yerba Santa with Grasslands.

Chamis (Dixon's #343)

Thin stand of chamise with grasslands.

Loading Map

Omitted

Legend For Ribes Control Map

Sugar Pine (Dixon's #325)

Western White Pine (Dixon's #354)

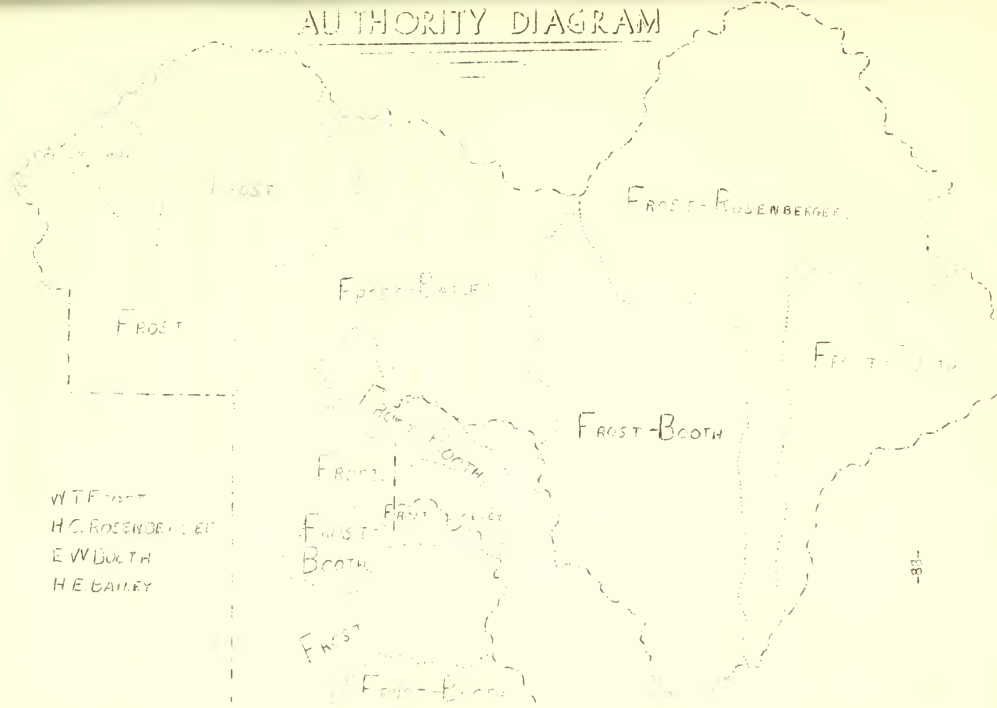
Limber Pine (Faber's #22)

Foxtail Pine (Dixon's #322)

Foxtail-Whitebark Pine (Dixon's #322)

Foxtail-Western White (Dixon's #322)

Whitebark Pine (Dixon's #321$\frac{1}{3}$)


AUTHORITY DIAGRAM
FROST
FROST-ROSENBERGER
FROST-BAILEY
FROST
FROST-BOOTH
FROST-BOOTH
FROST
W T FROST
H C ROSENBERGER ET
E W BOOTH
H E BAILEY